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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,782	07/05/2001	Curt Delaney	6845/63725	2363

7590

03/31/2003

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EXAMINER

GUARRIELLO, JOHN J

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 03/31/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/899782

Applicant(s) DeLaney et al.

Examiner John Guarnello

Group Art Unit 1771

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-10 is/are pending in the application.
- Of the above claim(s) 7-10 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-6 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

Election/Restriction

15. Restriction to one of the following inventions is required under 35

U.S.C. 121:

- I. Claims 1-6, drawn to composite article, classified in class 442, subclass 64.
- II. Claims 7-10, drawn to method of making, classified in class 427, subclass 387.

16. The inventions are distinct, each from the other because:

17. Inventions I and II are related as process of making and product made.

The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process which would involve using heat and pressure to form the carbon layers.

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18. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

19. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

20. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

21. During a telephone conversation with Jay H. Maioli on 1/16/2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-10, Group II are withdrawn from

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further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamon 5,284,701 in view of Lennox et al. 5,773,122 and Litant 3,406,126.

Hamon describes carbon fiber mats which can be woven or nonwoven, (column 1, lines 50-55). Hamon describes fine carbon fibers of woven or nonwoven sheets which can be coated with a coating, i.e. epoxy, or others, (column 1, lines 55-68). Hamon describes the coatings and the mats of carbon fiber with a density of about 0.75 ounces per square yard, (column 1, lines 65-68; column 2, lines 1-3). Hamon describes the coatings on the

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nonwoven fiber mats which correspond to the central layer, first nonwoven fiber mat and the second nonwoven fiber mat with coatings which can be applied to the respective layers of the claimed invention. Hamon differs from the claimed invention because it is silent about the alignment of the carbon fibers with an electrically conductive resin matrix.

Lennox describes carbon-carbon composites, well-known in the art, generally are carbon matrices reinforced with carbon fibers aligned or distributed therein, (column 1, lines 10-12). Lennox describes can be formed by a variety of methods, (column 1, lines 12-14). Lennox describes the impregnation of a porous carbon fiber structure with a resin (corresponding to the resin matrix of the instant claims), (column 1, lines 13-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the aligned carbon fibers of resin matrix of Lennox, with their inherently electroconductive properties of fibers as evidenced by Litant 3,406,126 (column 1, lines 15-59), in the carbon fiber layers and mats of Hamon motivated with the expectation that it would have

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been obvious to align fibers since this has been held that rearranging parts, corresponding to the carbon fibers, of an invention involves only routine skill in the art, *In re Japikse*, 86 USPQ 70. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the electrical conducting fibers of the Litant matrix, (column 1, lines 58-59) with the resin matrix of Lennox in the layers of Hamon motivated with the expectation that an improvement in electroconductive properties would be evidenced, see Litant, (column 4, lines 54-66).

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tucci et al. 6,444,102 describes carbon fibers in a resin with electroconductive properties..

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Guarriello whose telephone number is 703-308-3209. The examiner can normally be reached on Monday to Friday from 8 am to 4 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John J. Guarriello:gj

Patent Examiner

March 10, 2003

March 21, 2003



ELIZABETH M. COLE
PRIMARY EXAMINER